THE SUEZ CANAL.

THE VOYAGE FROM SEA TO SEA.

IFROM OUR OWN CORRESPONDENT. SUEZ, Nov. 21.—Throughout the dreaded Serapeun ection, extending from Toussoum to the Bitter Lakes, our vessel, the Sennar, found no obstacle. There was no reason why she should, and there is no part of the whole canal where a ship of her class, drawing 11 feet 6 inches, and less than 200 feet long, may not pass with ease. I do not mean that this is the limit; far from it; I shall state that by and by. Our delays and the amazing length of our voyage, were due-with the exception of the 20 minutes lost by breaking the tiller-rope to the ships ahead of us-mainly to one ship. The Sennar was not making the passage for the first time. She had come up on Tuesday from the Red Sea, her regular station, and had passed straight through from Suez to Ismailia. fifty-one miles, in seven hours and a half. To the big ships the Serapeum section had proved very formidable. Where it bends, they had gone ashore on the edges of the channel. Where it is straight, they had sometimes found the idepth in the center of the

channel insufficient. THE FAMOUS SERAPEUM ROCK. It is just after passing the station, which, as well as the whole section, takes the name Scrapeum, that the famous rock occurs of which we first heard in Port Said. The rock is a real rock, but the Port Said stories about it were the wildest fictions. I gave in one of my first letters the account which came to me from M. de Lesseps; an account which treated the rock as a suddenly discovered horror, hinting at foul play, even suggesting that the thing had been rolled into the canal, and describing how they tried first of all to drag it out by ropes, and that failing, attacked it with powder. It would be unfair to hold M. de Lesseps responsible for these wonderful statements. I do not know that he made them, though they were related to me as coming direct from him, and my informant was a person whom at that time not occurred to me to distrust. If he made them, or any of them, he made them, I dare say, in good faith. The same man who explained to me the absurdity of the account, explained also that M. de Lesseps was more likely than anybody else to have been deceived by it. For M. de Lesseps is not an engineer. He conceived the idea of the canal, he believed in its practicableness, he had the incomparable energy, and force, and persuasiveness to make other people believe in it, and put money into it, and so has carried the scheme on his shoulders from the beginning. But he has left details to others, and technical details of engineering more than all. He has been the soul of the project. Its brains, in the sense of professional knowledge and capacity, have been supplied by others. It is perfectly possible that M. de Lesseps heard of the Scrapeum rock for the first time week before last. None the less, the rock has been perfectly well known to engineers and constructors for some two years. There is a ridge extending from the land above the banks down through the banks, and directly across the bed of the canal, which it cuts at right angles, at a depth of not more than 12 feet. By an error that seemed-as so many things in the last few days have seemed-unaccountable, the extra time necessary to cut away this ledge to the required depth was not allowed for when the time came to be estimated for completing the work and fixing the date of opening. The contractors reckoned up their cubic meters remaining to be extracted, as if their dredges were equally efficient against mud and against solid granite. The result was that the day for opening drew rapidly near while no impression had been made on the Serapeum ledge, and that for a time there was a prospect that all ships drawing more than 12 or 13 feet of water would have to content themselves with reaching Ismailia. By great exertions, the rock was got down to about 16 feet, and by the time that had been done it had come to be well understood that vessels of greater draught than 16 feet, or 17 at most, would not be taken through the canal at present. So the rock, which at first had been a bugbear, proved in the

traces of the ledge. Probably it had been buried by the excavated sand piled up on the bank. AN ADMIRAL'S BREAKFAST.

end a convenient scapegoat. It has had to answer

for a good many sins not its own. The Peluse and

the Fiume scraped over it, reducing it a little at the

expense of their keels and for the contractors' bene-

fit. The others, so far as I know, went over without

touching. For our part, we should not have sus-

sight of the thing. We could detect only slight

Our impatience during the morning was alleviated by a message from the Admiral, inviting us to breakfast. We accepted with alacrity, having some curiosity to know what the breakfast of an Egyptian Admiral was like. It was served at 10 o'clock, and this was the bill of fare, each dish being served separately: 1, soup, patés each dish being served separately: 1, soup, pares d'Italie; 2, roasted chickens; 3, potatoes fried in oil, 4, a kind of pancakes, also in oil, with sugar; 5, potatoes, almost sweet. boiled and cut into slips, eaten with pepper and salt; 6, macaroni, boiled, and grated cheese; 7, tomatoes stuffed; 8, boiled rice, a l'huile; 9, coffee. Some of the dishes seemed more Italian than Arabic, and the whole menu is to be taken, not as a model Arab breakfast, but what an Egyntian Admiral out of provisions was able to sup-

taken, not as a model Årab breakfast, but what an Egyptian Admiral out of provisions was able to supply to his seven guests. He did not sit at table with us, but sent a polite message of regret that he could not offer us anything better. Our provisions from the Touareg were still abundant, and, indeed, were not consumed when our voyage, which lasted three times as long as we expected, came to an end.

In Serapeum we were out of the region of the flying sand. The banks fell at a smooth and regular angle, like those of a railway. A scanty vegetation appeared, due to the fresh water canal which here formerly effected a junction with the maritime, and supplied it with water till that of the sea was let in. The desert is behind us, and the country through which we journey, though sterile, is not the shining floor of level sand which grew familiar to us north of which we journey, though sterile, is not the shining floor of level sand which grew familiar to us north of Ismailia. Low hills rise near, two mountain ranges meet on the horizon to right and left. On the right Ghebel Geneffe and Attaka, trending south from the far west, and breaking off suddenly in steep terraces that go plunging down into the Red Sea. They end almost as the easterly ridge of the Shenandoah Mountains ends in the middle of the valley at Port Jackson. On the left is the range which, if we could follow it, would lead us to the slopes of Sinai.

THE BITTER LAKES.

follow it, would lead us to the slopes of Sinai.

THE BITTER LAKES.

During our delay with the rudder our friends had crept on far ahead. At 1½ the last of them vanished into the Bitter Lake. They left between them and us a straight section of the canal, a glimpse of the green water of the lake, and nothing else. Wherefore we knew and rejoiced in knowing that our path lay open to the lakes and through the lakes, and we made haste to believe that we should rest that night in the harbor of Suez. At 1½, the Sennar passed out from between the inclosing banks of the canal, and entered the north end of the great basin of the Bitter Lakes. I knew well enough the history of Bitter Lakes I knew well enough the history of the Bitter Lakes; that they had been a dry depression of the earth, once filled, long since dry, and that they had again been filled by the canal, for which they formed a natural broad channel that needed no they formed a patinar broad channel cash acceed he dredging; needed only to let the water flow, and the ships float over it. This I knew, yet when the lake opened to receive us, I almost ceased to believe the story. This inland sea stretched south to the horizon, and to the base of the mountains that bounded it, or seemed to bound it, east and west. The story had been credible till the evidence of it was before our eyes, and then the miracle was too great; vast as was the lake, it was artificial. An explorer would have believed he had reached the ocean. Sea and sky had again met, and the water that had cissed the horizon in the Mediterranean comes back kissed the horizon in the Mediterranean comes back to its embrace in the heart of the isthmus. The sight of it was another of the great moments of the voyage. Port Said with its thronged harbor had been the first, the entrance into the canal the second, then the view of the desert, and last the arrival in Lake Tomsah, the enchanted palace of fire that rose out of the lake, and the fleet that lay anchored off the town where five years before had been neither town nor a drop of water, fresh or sait. Now came these great lakes, 25 miles long, and in places one quarter as wide, and the sight of all that water from the sea-raised our spirits again, and once more persuaded us of success.

that water from the sea raised our spirits again, and once more persuaded us of success.

PHARAOH AND HIS HOSTS.

We had the lakes almost to ourselves. The ships that had gone on were sinking beneath the horizon: those following had not reached the lake. A line of beacons marks the channel for some distance, ending in a light-house, beyond which ships may steer as they like. The Sennar for the first time goes on at full speed, and even sets her three try-sails to atch the wind that blows fresh and cool from the west. In fact the Sennar is a sailing vessel with west. In fact, the Sennar is a sailing vessel with suriliary steam power. She will do 13 knots under canvas and not more than ten under steam, and we

us later in the day. Two hours and a half carried us through the lake, and at 4 the banks of the last section of the canal are on either side. The soil has become stiff and clayey. In another half bour we are at Chalouf, the beginning of the last doubtful part of the voyage, where curves and imperfect dredging, and I know not what else, have kept back those big ships ahead, which we believed and hoped we should see no more of, but which to our dismay we began to come up with. We have passed, or are passing, over one of the famous places in the world's affairs. Either across the lower basin of the Bitter Lakes, or by way of Chalouf, went the Israelites, fleeing before Pharaoh. The Red Sea in those days would have shortened the labor of canal building, for it reached, say geologists, up to the lakes, and these are the two points at either of which the Israelites might have passed conveniently during a low tide. Pharaoh and his chariots, being too hot in pursuit, forgot the incoming waters, as people forget them now on some of the Scottish rivers and estuaries, or in the Bay of Fundy, where they advance with frightful rapidity. Naturally, the tide swallowed them up. I don't know how new or old this explanation may be, but I found it given at much greater length in a book only last month published. Readers may take it or leave it as they like; will certainly not take it if they prefer their miracle to a mere physical explanation which makes the facts consistent with natural laws, instead of being inconsistent, and so miraculous.

they prefer their miracle to a mere physical explanation which makes the facts consistent with natural laws, instead of being inconsistent, and so miraculous.

In the Chalouf section we marked for the first time the tide from the Red Sea. It was ebbing, and had left a white crest on the wrinkled edge of thin sand cakes projecting exactly like ice-cakes from the bank. They marked the level of the sea. A little farther on they marked our anchorage for the night. Ships ahead filled the canal as far as we could peer through the coming night, some lying right athwart the canal, and those that had escaped grounding escaped it by anchoring. There was nothing to do but follow their example. The rattle of the chain extinguished our last hope of seeing Suez that night. Evidently the fleet meant to wait for the flood, and then they even waited for daylight, and went down on the following ebb. Where we anchored was but five miles from the mouth of the canal. Suez lay plain in sight, its illuminations just kindling, with the mountain-granite behind the town for a back-ground to the spectacle. We had everything in view but what we wanted most of all, a sight of the Red Sea. Suez was nearly ten miles distant by water, by land not more than a mile. You will see why, if you look at the plan which shows the canal passing by Suez on the left of the town and entering the Gulf some four miles to the south. In fact, the town has never made its way down to the harbor. There is a causeway, and goods now go up by rail as well as in small steamers.

There was no stir during the night in our part of now go up by rail as well as in small steamers.

There was no stir during the night in our part of the canal I presume some of the ships nearest the

the canal I presume some of the ships heart went through as soon as the tide served. Where the Sennar lay the tide ebbed completely, flowed, and began to ebb again before anybody moved. At five in the morning ropes and chain cables began their clatter, and I went on deck. They were heaving at the anchor, the ships ahead were under way, we should be off in five minutes, said the pilot. Before the senar ways are the Senar ways. we should be off in five minutes, said the phot. Before the five minutes were passed the Sennar was hard aground. There had been some blunder about the anchor, or one of the hawsers had been let go too soon, the ship had swung round instead of going on, the tide was ebb and running swiftly. Are we to spend another day in the canal?

SHIP AGROUND.

spend another day in the canal?

SHIP AGROUND.

For an hour the ship was a scene of confusion that boded ill. The Admiral was probably the only capable Egyptian officer on board, and he was asleep. It did not occur to anybody to wake him. Our pilot knows the canal and knows how to handle a ship. Unhappily he does not know a word of Arabic or Turkish, and there is not an officer, the Admiral excepted, who knows a word of French or Italian. To complete the confusion, the engineers are English, who understand a little Arabic, but neither of the pilot's two languages, so that here was a ship aground in a canal and her chance of getting off depended on the execution of orders that had to be transmitted in at least two languages. no two of which at least two languages, no two of which were spoken by the same officer. Who commanded that vessel during the next half hour I could not say. There was no officer on the bridge which is pretty much the same thing as saying there was no officer in charge of the ship. The pilot and the captain would evidently have quarreled if they could have comprehended each other. He was an explosive fellow, that pilot, and his Sacr-r-r-r-r-e nom explosive fellow, that pilot, and his Sacr-1-1-1-r-tom de Dieu would have made his fortune on the stage. By help of signs he got the engine started, but it started the wrong way. I translated a few orders for him into English, which the engineers understood, and obeyed or not as they liked, for they had the option of obeying the captain who generally contermanded the pilot's orders. After an hour of this thing, the Sangar yielded easily to the pull kind of thing, the Sennar yielded easily to the pull of a two-inch rope from the bank over the starboard quarter, and floated off.

quarter, and floated off.

AN EGYPTIAN CREW.

This episode excepted, I should say the Sennar had been well commanded and handled. The Admiral was a very capable officer. His subordinates might not have done much alone, but they did well enough under him. As for the crew, they were, save a dozen men or so, raw village lads who had never been to see willing and quick, but some to be see sick, said. men or so, raw village lads who had never been to sea, willing and quick, but sare to be sea sick, said the pilot, in the first gale of wind. There was plenty of discipline, of that kind which is administered with a rope's end. We had no chance to see any gun practice, which I regretted the more as the Sennar carried six fine Armstrong breech-loading rifled cannon, and one would have liked to see what the Egyptians would do with such things. Nothing could be more unsailor-like than the uniform of the crew, who were arrayed, from the cabin-boy to the quartermasters, in pected its existence, but for the stories which sharpened our curiosity and kept us alert for the would do with such things. Nothing count of hor ensuitor-like than the uniform of the crew, who were arrayed, from the cabin-boy to the quartermasters, in dark blue, double-breasted, brass-buttoned frock coats, turned down and edged with searlet, trowsers striped with the same, their heads covered with the unfailing fez, and their feet, for the most part, with dirt only. But they went aloft nimbly enough, and worked about on deck in a way that showed they bad the making of good sailors in them. At night they wrapped themselves in their white blankets from head to foot, covering the head always completely, and went to sleep on deck just as they would have gone to sleep on the sand of the desert whence they came. Enveloped as they were, they looked like corpses laid out and waiting their turn to be buried. Half-a-dozen were assigned to us by the Admiral as servants when we came on board. My fellow never left my state-room door, except to execute my orders, and as the orders had to be given mostly in panleft my state-room door, except to execute my orders, and as the orders had to be given mostly in pantomime they sometimes produced curious results. When I picked a few words of Arabic out of Murray he was much delighted; but he learnt English much faster than I learned Arabic. His greatest distress was that I should do anything for myself. He could not endure to see me brush my own coat, and I believe he would to see me brush my own coat, and I believe he would have brushed my hair and teeth, if I had consented. When I ordered hot water he was plainly of opinion that I was about to perform a religious ceremony, and as he watched me shaving, his conviction became a certainty. They were not bad fellows, and if they had been cleaned, one might have had worse servants. Their devotion was equal to that of Robinson Crusoe's man Friday. If I went on deck at night to see whether the ship was likely to stir, I was sure to stumble over two or three of our half dozen, sleeping in impossible postures, against our doors, if there ing in impossible postures, against our doors, if there was room, and on the stairway if there was not. When we quitted the ship, we gave them what remained of our provisions, and a Napoleon to divide between them. If you think that was not magnificent: what do you think of their pay? They get \$150 a month, and our one Napoleon was nearly half a month's pay to the six. The commander of the ship is paid \$60 a month; the first engineer, a German,

THE SEA. And now, courage! We are but five miles from the mouth of the canal. Our delay has given the other ships ample time to get through. We have but one more halt to make. At 9 o'clock we are within half a mile of the end. For one moment, the Sennar touches in mid-channel, her bow lifts, she rolls like adventer man but in another minute she is ever. a drunken man, but in another minute she is over.
At 9:30 we are in the Red Sea. By the canal it is 50
miles from Ismailia. We have been 45 hours
on the voyage. The Sennar dresses herself
sgain in flags, and mans her yards. The town and ships are still in gala costume; nearly the whole fleet that left Ismailia on Friday anchored in the harbor of Suez. We cared at that moment neither for town nor fleet. What we gazed at were the sparkling emerald waters of the Gulf of Suez. Because we had passed completely through from Port Said to Suez we knew at last of our own knowledge that the waters flowed freely from sea to sea. Two continents that the land had joined were joined more closely than ever by the water that had divided the

NAVAL MATTEES.

The United States steamers Yantic and Albany, now at this port, will be refitted and ordered to rejoin the North Atlantic Squadron, under command of Admiral Poor. The Powhattan, which recently returned to Philadelphia, will be put out of commission. Orders have aleady been given to pay off and discharge the crew. The Seminole is to be ordered to St. Domingo, where the United States steamer Nantasket is already on duty. Coal for the use of the North Atlantic Squadron has been sent by the Navy Department to Samana, now in possession of our Government. Admiral Poor will probably soon make a visit to Haytl in his flag-ship, for line purpose of looking after United States interests in that quarter. The harbor of Port Royal, S. C., has been recommended as a nayal rendezvous for the vessels of the North Atlantic Squadrow, and will probably be used for that purpose. Admiral Poor, in, his flag-ship Severn, accompanied by the Monitor Dictator, has left Savannah for Key West.

It is proposed to build a railroad from Sodus Bay to Waverley, near the Pennsylvania State line Several places of commercial importance, such as Clyde, Seneca Falls, and Ovid, in the last of which the new State Institution for the Chronic Insane Poor is situated, canvas and not intore than ten under steam, and we soon discover that the two steamers astern of us, who are racing with each other for the lead, will at a two are racing with each other for the lead, will at a two are lead us before we get across the lake and pure more into the canal. They pass us in half an hour, and are determined to but the way to Sucz for read, and to Sodus Bay on Lake Ontario.

THE AMERICAN INSTITUTE.

SECOND OF THE COURSE OF SCIENTIFIC LEC-TURES-PROF. E. S. MORSE ON "HOW ANI-MALS MOVE."

The second of the series of scientific lectures pefore the American Institute was delivered last evening at the Cooper Institute, by Prof. E. S. Morse of the Peabody Academy of Science, Salem, Mass. Subject: "How Animals Move." The lecture was illustrated by drawings of the animals, which were rapidly and finely executed upon a blackboard. The President of the Institute, Mr. Horace Greeley, introduced the lecturer in the fol-

LADIES AND GENTLEMEN: The next lecture of this course will be delivered on Friday evening next, Dec. 31. It will be on the correlation of "Vital and Physical Forces," by Prof. G. F. Barker, Yale College, New-Haven. The lecture this evening is entitled, "How Animals Move," and will be delivered by Prof. E. S. Morse, whom I now have the pleasure of introducing.

Prof. Morse, upon coming forward, was greeted with

applause. He said: HOW ANIMALS MOVE.

LADIES AND GENTLEMEN: In selecting this subject for a lecture, I had a two-fold object in view. To compass within the limits of a single lecture a rapid sketch of the animal kingdom, and to illustrate from the examples cited a new principle of classification. The great thinking class desire principles. They demand the results of scientific investigation. They have no desire to know the number of petals in a flower, or the number of segments in an insect, and while this work must be done, and patient inquirers there be who are continually adding the minutize to the science, the public are only interested in the deductions drawn from this maze of facts. In the classification of animals we shall find principles that give us a clue to the relative superiority of an animal, and while there is no question about the highest animal in existence, or certain forms which are known to be the lowest, the hundreds of thousands of intermediate forms are to be classified and arranged in a natural sequence. The relations among animals may be shown by their structural resemblances, but the relative grade of an animal is shown not only by the greater complication of their structure, but also by certain principles which I will Illustrate. A principle first enunciated by Prof. Agassiz is, that animals which live in the water (in their respect ive groups) are lower than those which live upon land, and this may be plainly seen by noticing the fact that all the animals below vertebrates, excepting insects and a few other smaller groups, are all inhabitants of the water, and among the classes of vertebrates the lowest class, the fishes, are all aquatic and breathe by gills. The next class, of which the frogs and toads are common representatives, are amphibious in their habits, though some live in the water and are furnished with gills. In the next class, the reptiles, we have all of them air breathers, and many of them terrestrial, though some, as the turtles, aquatic.

The birds are terrestrial and acrial, though among the lowest of them we find aquatic animals like the auk.
The mammalia, again, have their lowest forms, like the
whales and dolphins, in the water.

EMBRIOLOGY. Another principle of far more special application is that based upon embriological data. It has been found that animals in their development pass through certain stages that recall adult conditions of animals below them. A common example may be cited among the amphibious, where the lowest forms resemble fishes having tufts of gills on the sides of the neck and a long finned

phibious, where the lowest forms resemble fishes having tufts of gills on the sides of the neck and a long finned tail. A little higher up we come to those that have the same general form, but the gills are wanting, and they breathe air. The toads and frogs are the highest, and here the tail is absent, and now locomotion is performed by the strongly-developed hind legs. If we now examine the development of any frog, it will be found that on leaving the egg the animal is without legs, and swims with its tail, and breathes by gills; that by 'successive steps it becomes an air-breather. Fittle legs bud out, and ultimately the tail is absorbed, and we have the completed animal. You will see by these figures that the different stages resemble some of the forms I have just drawn. Many other examples might be cited, but time will not allow me to present them.

This principle has beenirecognized under a variety of propositions by many minds. Goethe in 1893 and Von Baer in 1828 showed that development was always from the general to the special, from the homogeneous from the heterogeneous, from the simple to the complex, and this by a gradual series of Stifferentiation, and Herbert Spenser has applied the same law of evolution in many new and startling ways. And as a law of evolution in the interesting to notice that in the advent of animal life upon earth we have a sequence of forms that illustrate the fact that the earlier forms created within their respective groups were also the lowest. Agassiz has beautifully illustrated this among the Edimoderus and Fishes—the earliest fishes had tails in which the vertebral column terminated in the upper tone of the caudal fin, let the sharks; while fishes of higher structure have the vertebral column terminated in the upper tone of the caudal fin. Yet, if you will examine a young trout just hatched you will see that the tail resembles that of the shark in this feature.

within its reach, or within the stomach and intestine the

within its reach, or within the stomach and intestine the nutritive matter is circulated.

Another form of locomotion is seen in the Amoeba, one of the simplest of animals. The body has no stomach, no locomotive organs, in fact we might say has no organization, resembling more a drop of thin glue than anything else, and yet this little animal can move, and can ingest and digest food. It moves by certain portions of its body expanding or projecting, and then the remaining portions contracting to it. And while it is dragging itself along it may at any time enguli in its folds particles of food, which are rapidly digested, and any portion of its body may at any time improvise a temporary stomach. In other are rapidly digested, and any person of the body any time improvise a temporary stemach. In other members of this simple group the animal fabricates a beautiful shell of microscopic proportions, though of such remarkable structure and singular resemblance to the nautilus and ammonite that for a long time the best natural.

beautiful shell of microscopic proportions, though of such remarkable structure and singular rescapbiance to the nautilus and ammonite that for a long time the best naturalists included them in the same class. This little chambered shell is also filled with some simple substance which projects in fine threads through the many minute perforations of the shell, and performs the act of locomotion and digestion as in Amoba.

Another condition peculiar to many animals is their fixed condition. In all the branches executive the condition in all the branches executive the condition of the lowest animals, like the sponges, are fixed, growing in communities, like the coral byliders. The crinoids, or stemmed star fishes, are attached by a stem to the rock. Many of the lower shell fish, and certain low worms and the barnacles are always fixed, though many of these in their younger stages are locomotive animals. As the barnacle, for example, upon issuing from the egg, remotely resembles the young of the crab and lobster, is furnished with eyes and skips about in the water for some time. Afterward it becomes affixed, head downward, to the rock, or whatever appropriate substance it may meet with, and becomes stationary for life. Many of these fixed animals are parasitic on other species: the whole being oftentimes covered with a peculiar barnacle; and other animals might be mentioned which are likewise parasitic; then there are certain species which become attached to floating timbers or to sea weed, and even the bottoms of vessels are frequently so thickly covered with species of this nature at materially retard their speed. In other cases only the early condition of certain animals are attached, as in the discoid jelly fishes, the young is rooted to some spot, and reminds one of the polypo, to which group they were at first referred; by successive divisions of this unit, a number of little jelly fishes are produced. This attached condition of animals may be called a vegetative character, and is a sign of degradation, and w

lowest forms of certain groups attached.

WORMS, SNAILS, &c.

Another form of locomotion is seen in certain animals where a large portion of the body is formed into a creeping disk. [The lecturer then rapidly illustrated on the board various worms, snails, &c.] The sea anemone has slight powers of locomotion through a net work of muscular fibers furnishing the broad area which they adhere. Most bivalves and snails have a more specialized apparatus called the "foot," by which they creep along. A singular feature among some is the power the foot has of imbibing water, and on examination there is found to be a series of channels for this express purpose. Let any one take up the common beach cockle (Natien) when it is srawing over the said, and he will see how slowly the foot gradually contracts, and draws within the shell, the water which had provious been absorbed slowly ooxing from it.

n absorbed slowly oozing from it.

In another phrase we have the animals swimming through the water by hydrodynamic action; thus in the discoid jelly lishes the water is urged from beneath the water by movements of the disk. In some low forms of moliusis the body dilates, drawing in water at one opening, and their by vigorous contraction expelling it from another opening, and the resistance offered propelling the body. In a similar manner the common scoilop, by rapid opening and closing common scollep, by rapid opening and closing

The squid or cuttle fish, among its various modes of locomotion has the same power of ejecting jets of water, and swimming in this way, and the pointed extremity of its body is well adapted to cleave the water. The paper matirius, so long supposed to possess the power of floating on the surface of the water, using its long arms for oars, and its other two arms thrown aloft and spread as sails to cateh the breeze. This beautiful story is not true, however, and the paper nautilus moves as all other cuttle fishes, hav-

ing no power to come to the surface. Thus far we have seen movements by ciliary action, and also movements of the animal wherein nearly the whole body was involved in effort. Now we are to consider animals in which the locomotive organs become more specialized. In a large group of jelly fishes the body is provided externally with hands composed of many vibrating paddies, in their movements looking very much like cilia, and these cause the body to rotate, or move in a straight line. Among the star fishes we find channels on the under side of the animal, which give rise to a great number of little suckers, looking like so many little writhing worms. Our commonstar fish has from 1,500 to 2,000 of these suckers. They are projected like legs, and drag the body sibwly along.

The cuttle fish alsohas arms furnished with suckers, but unike the star fish, the suckers simply hold the arms, so that they can find points of support in their movements.

The Hydra movis

movements.
The Hydra moves by its tentacles, and

by its tentacles, and sucker-like extremity. Many marine worins are provided with namerous appendagis
that aid them in swamming.
Among the crustacea, the lobster, for instance, it is
very instructive to ixamme the functions performed by
appendages strangely adapted to perform various func-

very instructive to adapted to perform various functions.

In the incipient stages of the lobster, for example, the body is composed of a series of rings, with appendages quite identical in shape and size. In its growth the forward rings unite above and form the carapace or shield, while in the hinder portion of the body the rings remain separated so as togive full play to its movements. It is by this portion that the lobster leaps backward in the water. Beneath this portion are found little appendages that are flattened and form natatory organs by which they can swim. These appendages are also covered with hairs, and to these the eggs athere when discharged by the parent. The small claws are jointed, and are used as legs by which they crawl, the two under pairs of claws having but one projecting point, while the two forward pair of small claws have a little pincer or nipper at the cal. An examination will show that no new feature is adjed to the claw, but simply an excess in the growth of a partion of it, by which an opposing point is unde. The large claws are only a greater development of a similar appendage. Even the numerous organs around the mouti, the feelers and eyes, are but modified foet.

ANIMALS THAT FLY. In insects we have for the first time animals that support themselves iy wings, those having broad wings like the butterfly moving slowly, while the bee, with small wings, moving tlem with incredible velocity. Time will again compel meto neglect the special features in this

again compel tiem with increation velocity. This was again compel meto neglect the special features in this fromp. We at last come to the Vertebrates, as the highest branch, and here the locomotive organs are reduced to two pairs. In the lowest class, the fishes, these appendages are represented by the pectoral and ventrallins, and have little to do with the propulsion of the animal. This is accomplished by the broad fin on the tail, which is rapidy moved from side to side, as a man skulling moves his oar. In the flying fish, the fins that represent the lete legs are greatly enlarged, and enable the fish to take hort flight in the air; while in another fish the same fins are developed into rude legs, by which they creep over the mud. In the flounder, a curious modification takes place in the head, by which it adapts itself to its simplar pastime. The flounder lies upon one side, and the eyes, which were upon either side of the body, in the young sate, are both found upon one side only. An eye actually passes through the skull by absorption of the bones inits way, and comes ont by the side of the other eye. As we ascend in the scale of structure, we find the limbs variously modified, to subserve a more terrestrial existence, and ultimately the tail is dispensed with as an organ of locomotion, and the legs now perform that function.

WHALES.

Among the namumalis, however, the whales, as lowest,

Among the nammalia, however, the whales, as lowest, use their tail as a locomotive organ; (the hind limbs are not developed, and the fore limbs are mere paddles. At the commencement of the lecture we referred to another infact of gills on the sides of the neck and a long flunder tail. A little higher up we come to those that have the same general form, but the gills are wanting, and they breathe air. The todas and frogs are the highest, and they breathe air. The todas and frogs are the highest, and here the tail is absent, and now locomotion is performed in the development of air and here the tail is absent, and now locomotion is performed in the development of air and here the tail is absent, and now locomotion is performed in the development of air and here the tail is absent, and now locomotion is performed in the development of air and here the tail is absorbed, and we have the completed animal. You will see by these figure have just different stages resembling the tail is absorbed, and we have the completed animal. You will see by these figure have just different stages resembling the same law of evolution in many many many maints. Goethe in 187 and You Rare in 1828 showed that development more encous to the the general to the special simple to the complex, and this part of the special simple to the complex, and this part of the special simple to the complex, and this part of the special simple to the complex, and this interesting to notice that in the advent on the special simple to the complex, and this interesting to notice that in the advent on the special simple to the complex, and this interesting to notice that in the advent on the special simple to the complex and this interesting to notice that in the advent on the special simple to the complex and this interesting to notice that in the advent on the special simple to the complex and this feature.

In order to illustrate another principle of the special simple to the complex of the special simple to the compl principle of classification we were to illustrate, and this is the principle of Cephaligation, first enunciated by an

by a vertical line. (See diagram.)

The lecturer closed by quoting from Agassiz: "Man is the crowning work of God on earth, but though so highly endowed, we must not forget that we are the lofty children of a race whose lowest forms lie prostrate within the water, having no higher aspiration than a desire for food, and we cannot understand the possible degradation of man without knowing that his physical nature is rooted in all the material characteristics that belong to his type and link him with the fish. The moral and intellectual gifts that distinguish him from them are his to use or abuse. He may, if he will, shjure his better nature, and be vertebrated more than man; he may sink as low as the lowest of his type, or may rise to a spiritual hight that will make that which distinguishes him from the rest far more the controlling element of his being than that which unites him with them."

LEGAL INSANITY-A MAN KILLS HIS SECOND WIFE.

LEGAL INSANITY—A MAN KILLS HIS SECOND WIFE.

The Philadelphia Press of yesterday says: By midnight mail, last night, from Fottstown, Penn., a terrible sorry reached us. It tells of the murder of four women by one man, not all at the same time, not at one butchery, like that of Probst, or the murder of the Peightal family, near Huntingdon, but at four successive periods—cears elapsing between each. This man has been declared insane by the laws of his country. He has suffered for none of these terrible crimes. Yesterday a dispatch appeared in The Press, dated Chicaco, Dec. 21, setting forth that John Hickman, living near Chandlerville, Ill., had murdered his wife on Sinday night by cutting her throat. It closed with the words, "This is the second wife Hickman has killed. He was acquitted of the first murder on the plea of insanity." We shall take exactly the words of our correspondent at Pottstown. They come written beneath the dispatch quoted above, which the writer has clipped from The Press: "It may be aided that this is his fourth murder. A Mrs. Brownbank many years ago, and a Miss Hannah Shonges, a few years since, both of Chester County, after which he left for the West, where he murdered wife No. 1." Our advices from Illinois fail to tell us whether the assassin has been arrested for his last murder. If insane, it is clearly more than wrong that such a flend should be allowed his liberty.

A special dispatch in The Chicago Tribune, gives the following details of Hickman, the perpetrator of the horribic deec, had some words with his wife. His son heard the dispite, but thought it nothing serious; left his mother and step-father talking, and wont to the barn. In a few minutes he heard his mother in a dying condition. The rufflish had struck her to the ground and cut her throat. She died in a few minutes. This is the second wife this man has murdered. About seven years ago he had some little disacreement with his wife, and murdered her, but got off on the plea of insanity.

GEN. WOOL'S ESTATE.

The evening before the veteran General was The evering before the veteral general was stricken down with the illness that closed his eventful career, he hade a most interesting statement to the editor of The Froy Whag, which conveys a practical lesson, and showshow easy it is to become rich after obtaining the first dillar, if one is prudent and economical. "I never make but \$20,000 in my life!" said the General emphatically "but I always kept that at good interest!" On our expressing surprise, he went on to explain. I seems that at the close of the war of 1812, the Gener found higself terribly wounded, but about even with the world in a pecuniary point of view. Shortly afterwar the Government sent him to the far South and West on the Government sent him to the far South and West on a special mission connected with military affairs, and for free years he traveled over mountains, and through the almost trackless wilderness, and accomplished his difficult mission, as he always did, to the entire satisfaction of the Government. He had not drawn a dollar from the Treasurf, except for actual expenses, and at the end of the fiveyears the Government owed him \$20,000, which was then paid. Here was the nucleus of his large fortune. Gen. Who was then about 35 years of arc. He died at about 150 age of 88. Now, let the reader take this \$20,000, which, at compound interest, will nearly double every 10 years, tad in the 50 years intervening between the time of its receipt and the General's death, he will find that it will amount fo just about the General's estate, to wit: \$40,000

The Philadelphia Bulletin has refused to publish the advertisement of the Earth Closet Company for fear of offending the delicate modesty of its readers. The world surely moves, but its progress is not noticeable in Philadelphia.

Gen. George W. Palmer, Appraiser of the Port of New York, has made the following appointments: Col. James Bart, Assistant Appraiser of the Second Divi-Mon; Col. G. E. Gourand, Assistant Appraiser of the Ninth Division; Mr. J. C. Shurgis, Assistant Appraiser of the Tenth Division, and Gen. T. B. Hamilton, Assistant Ap-braiser of the First Division. BOSTON RADICAL CLUB.

ESSAY BY D. A. WASSON AND DISCUSSION BY DR. BARTOL, W. H. CHANNING, MR. WEISS, DR. GEO. B. LORING, LUCY STONE BLACK-

WELL, MRS. LIVERMORE, AND OTHERS. Boston, Dec. 23 .- The members of the Radal Club assembled for the third meeting of the season at the house of the Rev. John T. Sargent on the 20th inst. The Rev. David A. Wasson, the successor of Theodore Parker in the pastorate of the Twenty-eighth Congregational Society, read an able political essay, and the discussion that followed was participated in in a somewhat desultory way by several of the leaders of radical There was a notable company present, a majority of whom are known in the walks of literature and in public life. It would not be an overstatement to say that at no other time and place in the land are there so many of the progressive thinkers gathered in a single room as at the meetings of this Club.

The subject of the essay was, "Thou Shalt, or the Science of Authority"-a chapter from a work on the functions of government which the author has had for some time in preparation.

THE ORIGINAL SANCTION OF AUTHORITY. The following is an abstract of the essay: "Science does not satirize history more than it does physical nature. In either case it assumes in the observed facts, however remote in time or grotesque in appearance, a significance to be found in harmony with all existing truth. In respect to organic truth, Goethe divined the truth now generally acknowledged that one and the same type governs growth through all its stages and transformations. We await the Goethe or

the Lyell who shall apply this law of uniformity to history, sustaining the identity of principles in all the ages of civilization. An apprehen of this fact is fast spreading-nature instructing us how to study civilization, with all the ideas, institutions, customs, and formative processes, that belong either to its history or to its present state; and historical criticism, at once animated and disciplined by the scientific spirit, is steadily becoming graver, more appreciative, more disposed to assume as its guiding clew the identity of type and uniformity of ideal force in all that upbuilding of humanity, all that organic vivification, structure, and growth which modern speech is accustomed to designate by the term civilization.

THE INSTINCTIVE RECOGNITION OF A HIGHER LAW. It is incontestable that man recognizes somewhat as sovereign over his will so soon as he has any sentiment of the kind which distinguishes human nature. By the first civilizers, law and rule were thought to come only from above. It is precisely this notion of their origin that gives them authority and engages obedience. Primitive sentiment knows nothing of law-makers, but only of law-givers. It is obvious that Moses, in saying "Thou shalt not kill," sought not to impose his individual will upon others, while he as little professed, or was understood to be, the mere reporter of their wills. He was accepted as an interpreter. Homer's Themistes signify the same. May it not be that in their instinctive reference of all authority to a ground above any will or inclination whatsoever we also find an old friend, though one that awaits our recognition! Principles are sovereign; men are so but as the media or exponents of principles. The laws of social welfare date from the foundation of the world, and are as unchangeable as its constitution. Men may discover, acknowledge, apply them, but are as incapable of making them as the eye of making what it sees. These laws every man is, by the fact of his existence as a human being, bound to obey; while any obedience enforced upon him otherwise than in enforcement of their claim is injurious and odious. Political thought that does not begin here, and thence proceed to all political func-

tions, is ipse facto discredited. AUTHORITY NOT PERSONAL BUT IDEAL. But beginning here, we are led to an unqualified rejecon of all mere personal authority, whether of one or of many, of king or of people. To this intent Government is organized, not to render some dominant over others, be it the few over the many or the many over the few, but to make reason dominant over ail. The State exists, it has been a thousand times said of late, to express the will of the people as supreme. The State exists in truth, to express the loyal submission of all wills whatsoever to the laws of social welfare, as by the best lights of reason determined-to express an allegiance we all naturally owe. sovereign human will-let us have done with that. Authority is victors, it lacks the genius of authority in the degree that its ground is any mere will, however ompounded. A compound, indiscriminate personal domination on the mildest scale, is Democracy; the sovereignty of the laws of welfare, represented by qualified agents, whose sole title to that ifunction is found in their transluceny to authoritative principles is Republicanism. The latter is the ideal aim of the modern world; but, unbappily, in passing over the crust of a period of transition it has slumped into the former. Our chief question therefore should be, not who it is, but what it is in which authority resides. This may seem an abstract way of contemplating the matter, but it is not more abstract than science and common sense must be.

WHAT IS OBLIGATION ! The speaker proceeded to define political obligation as having two factors independent of any man's will. The first is found in necessary conditions-necessary either absolute or relative, including necessary laws of consequence and the like. These make a certain conduct mater of moral necessity. For this necessity human authority is to stand, representing the imperative requisition of the facts. An enforced mandate is a crime against nature if it be not a mandatory form of the truth, having a deeper ground than mere volition. Public duty can as little be willed into existence as the force of a syllogism. The facts are thus and so; therefore duty is thus and so. A rational inference, a considerate judgment, mediates between the facts and the duty. Gov erument then is a means of getting the considerate judgment where it is wanted, that the facts may speak through it and afterward be rendered obligatory in force

as in right. Now it is obvious that just force can be represented by the considerate and judicious mind, as only a polished surface can serve the purpose of a mirror. Only such mind, therefore, is capable of a political act in the proper ense of the term. There is much in every demand, and an obvious preponderance in some, of force that is good while it is kept under, and infernal when it is not kept under. We are brute beasts every one of us, and none the worse for that so long as our brute part does not attempt the role of lawgiver; but when the beast in the individual or society proceeds to legislate, Satan's statute book receives the record. I hearmuch of each man's superior knowledge of his own interest, and of this supposed or pretended fact as the one from which the theory of government should be derived. Well, the prisoner at the bar is above all interested in the event of his trial. Does his interest call him to the place of judgment? excludes him. Do we say the will of the people is sovereign, and has a right to acquit or condemn at pleasure! That were barbarous or below barbarism. What is to decide! The special facts of the case placed in proper relation to those general facts and truths which all men ought to regard submissively. What can reflect these accurately ! Conside

rate and judicial mind. Political obligation also presupposes a purpose which is of such a nature that all men are under obligation to recognize it. The ideal ends of life, of which those of government form a part, have a claim to regard which is simply indefeasible. Good alone is regal; all the lines of just authority derive from it and lead to it. We are under a natural obligation to seek welfare, to accept the condition of it, to adjust the conduct to the laws of it. BUT WHAT IS WELFARE!

The statement that happiness is the true end of life, and, therefore, of government, lacks precision, to say no nore. Welfare is a qualitative term. It is relished, it is appreciated; it can be appreciated by those only in whom are the tastes, the disciplines, the capabilities, the habits of thought and sentiment, whose sum and effect are civilization and practical culture. Andrew Johnson sketched his ideal of society in a speech in the Senate before the war, and it was the ideal of a tamed barbarian; throughout it there peeped out a positive dislike of letters, arts, and manners, cities, commerce-all that raised civilization above the degree of mere boorish plenty and comfort. His subsequent career was a practical commentary on that speech, and might serve to teach us lessons that we seem not willing to learn. THE PRESENT CRISIS."

Are not these discriminations important to others beside theorists? A critical hour has struck in the world. That time must be critical when general principles re flectively distinguished gain practical importance and give the initiative to action. So long as men act instinctively nature charges herself, so to speak, with their guidance. Like bees, they build better than they know. But the power of building better than they know is lost when conscious knowledge and reflective opinion become exacting, and insist upon the first place. Then and there Nature, as it were, surrenders man to himself-to make or mar his own fortunes. He is seldom wise enough at first to comprehend the position to which an increase of knowledge has brought him.

In politics, as in other provinces, the epoch I have hinted at has arrived. But, because this epoch has come, we must distinguish, as men never had need to do be fore, the principles that justify authority. In this time, when class is taking up arms against class, and avocation against avocation; when capital is imperiled by lawless

wealth, and labor compromised by the spirit in which even its just demands are made; when fraud and rapacity occupy the very citadels, and we know not what to fear most, those who make the laws or those who stand ready to break them, I see one point, and after long reflection see it even more clearly, where reforms tion, to be at all radical, must begin. We must put authority in a condition to engage respect. At present the very principle of authority is in disgrace. The actual authority is always

in disgrace. The actual authority is always a makeshift, an expedient for the hour. Indeed it is esteemed endurable only because it is ephemeral. Rule is submitted to because we are so soon to be rid of it. It is a tooth that we do not have out because it aches but a little while at a time; the twinge would be in another place before we could reach the dentist's. The national attitude toward its, governing power is much like the mutual attitude of a husband and wife, who should each, the day after the wedding, purchase and keep always in view the other's cofin, by way of strengthening the marriage ite! "There is a divinity doth hedge a king," said the old world. That generous illusion, dignified obedience, if it did no more; and to de this was much. To obey what you honor is wholesome and elevating; to obey what you do not and cannot honor is debasing, and in the end morally destructive. There is a divinity doth hedge a caucus—the poetry of our politice has come to that. Power now is simply power: we submit to it, but we do so much in the spirit of the ancient Pistol, duning upon leaks: "I cut and eke I swear." The degradation of our civil service and the absence of any public sentiment to be shocked by its degradation; the great American principle, "Rotation in Office," and the great American principle, "Rotation in Office," and the great American principle, "Rotation in Office," and the great American principle, and the victors belong the spoils"—these things and a great many similar things might suggest a set of political archins, who, while capable, like other urchins, of fine sallies of bravery and generosity, know not the value of what they handle, and would burn an insurance policy to fire a toy cannon. The reader closed with the following summary:

1. To the laws of welfare, which are the ratio between necessary conditions and obligatory ends, every man's allegiance is due. But welfare is a qualitative term, signifying an elevated manner of life. Only to this are we ideally bound; any other bond imposed a makeshift, an expedient for the hour.

THE DISCUSSION-DR. BARTOL-THE WORTH OF SUF FRAGE. I think we have great reason for courage and hope, and

comfort for light in the shady picture which our friend has drawn. This abstraction of a higher law has not only an existence, but a power to execute itself even to the abolishing of the lower laws. I suppose the fugitive slave bill was a law of the State, enacted by the highest authority; and the people had no such light as our friend has shown to get around it. The calculation of success on the part of the slave power seemed perfect. Nothing could overthrow it except the element of revolution in which the higher law has the power, strangely, we hardly know by what instruments even in democracy, for setting aside a majority and working its own will. I suppose there was something, as our friend says, above our own will, power and understanding, a certain wind of inspiration which we felt, and which we no more made than the ship on the sea makes the gale which drives it. Though the will of a body of men or the will of a people may seem to be wrong, yet it probably never will be posthe abolishing of the lower laws. I suppose the fugitive ship on the sea makes the gate with a transport of a body of men or the will of a people may seem to be wrong, yet it probably never will be possible again to raise up such an accumulation of human will against the right as there was in this case. The earthquake may seem to drive the whole ocean upon the land for a moment, but I believe our safety is in the universal privilege of the vote. It never does express, it cannot express, mere will—it expresses the mind of the voter; and Providence has charge of that. I believe the more votes we have the better, the more impossible to suborn the majority of those votes, into the support of any personal scheme. When you bring in the great multitude of wills, the wills of all the men and women of a great nation, they are taken out of the character of mere will. There is a providential and spiritual power in them. The safety of it is in the very universality wherein people see danger—the people becoming the Divine instrument in it, the Divine vote.

MR. W. H. CHANNING—THE UNIVERSAL WILL.

MR. W. H. CHANNING-THE UNIVERSAL WILL. We ask what is law, and what is the authority of law itself? We know how he opened this address, and how he referred us, with that exquisite image of his, to our mother nature, and then gathered up our memories of

mother nature, and then gathered up our memories of human experience, and so interpreted the lessons of the ages. It am bound to confess that the result of a survey of the experience passing here, confirming the lessons of the ages in that we can find no other source of authority or law, except in our being in an infinite good will, in God himself.

One word more I have to say about this matter. I answer to Mr. Wasson—No, I don't see sanctity hedging around the caucus; but never more than to-day do I hear the truth sounding out. It is God who speaks in the voice and heart of the whole people, and I trust it as I never trusted it before; and if there is any experience that should lead us to trust it more entirely, and never give up, it is our experience throughout the civil war. Say what you will, it was God in the heart of this people that sayed this nation. I know the next extension of suffrage must be to include the inspiration that comes from the heart of women, and God forgive me if there be any yielding to mere conventional opinion in my thought. Unless we can bring out the will of humanity as a whole, of man and woman brought for the first time into equal sovereignty, we shall be damned, as every other nation on the face of the carth has been damned. [Applause.]

MRS. HOWE-A DEMURRER. Though I know how solid and logical Mr. Wasson's

work has been, I followed with intense interest, as one must follow when he reads. I have wanted several times to say, "Stop, you are not leading me right." I don't see where morals can be found, if when we tell a man "Thou shalt," he is unable to say "I will." The foundation of morals, the very first thing that religion appeals to is to raise and exert your will; it is energizing and inspiring; that is the real and palpable element of command and authority. And I feel there is something command and authority. And I feel there is something very divine about a caucus. I have a great and very tender reverence for it, no matter how badly it may do. Then I don't like the words beast and brute applied to anything human. However debased a man be, I don't think of him in that way one instant. I should say to such a man, "What you do is brutal; what you are is divine." That I think would be the way to touch the right string, the other is demoralizing.

think of him in that way one instant. I should say to such a man, "What you do is brutal; what you are is divine." That I think would be the way to touch the right string; the other is demoralizing.

Mr. Weiss—We must accept the situation. The criticism of the paper was particularly suggestive. It instantly a woke and sent flashing through, every vein of my thought a belief in the old ideal of the republic, toward which all criticism, the most hostile, the most searching, is tending, and as in all the cases where our friend. Mr. Wasson, has treated this subject, this one thought has always occurred to me—How are you going to get your best minds, to assume that authority which all the other minds and consciences will recognize as being the best!" And so I ask in the case of Mr. Wasson, though I love to hear the criticism and agree to every word of it, and I don't think there is a man living who can paint the gold ring, or the caucus ring, or the whisky ring, or the railroad ring, in colors too black for the truth. How are you going to get the conscientious men, the true and just men.

It seems to me we have to recognize one plain fact, as we have to in everything that relates to this universe—that here we are; we are not different from what we are, and we are not in any other place. Here are the tools, we have nothing else. We cannot go to work and forge tools for the future out of the impalpable. You have got to take the men and women just as they are born into the world. All the men and women of this republic are the people who compose the future welfare of the republic. Mr. Wasson spoke of the beginning of superficial equality; and it is only in the beginning of superficial equality; and it is only in the beginning of superficial equality; and it was superficial equality. Each blade was very hirsuite and not fit to eat, yet it contained the life of the human race. The ancient people understood it perfectly well, in the tradition that the grass that grew on the monuntain side was transmogrified intending the f

MRS. LIVERMORE-WOMAN SUFFRAGE, THE REMEDT While Mr. Wasson was reading his paper, I could not but assent to all that he was saying concerning the evil tendencies of the times, concerning the terrible upheaval of the late war that has brought all sorts of uncleanness to the surface. And then I said, does it follow that the republic is a failure, that after all this experiment that we have tried of a government carried on by the people is bearing us to anarchy; and I thought—why, we have not a republic; we have tried a form of government in which we have allowed the masculine mind to rule; but we have never yet invoked the feminine nature. I have great faith that whenever the men of our country—our misgoverned country—call to their aid the female half of nature, which may not be better, but is different, and was intended by God to supplement and complement it, that we shall find that we have taken a new departure from that hour. I felt also to rebel, as did Mrs. Howe, against the words brute, beast.

MR. WASSON—AN EXPLANATION. to the surface. And then I said, does it follow that the

MR. WASSON-AN EXPLANATION. I beg leave to say that I did not, in my essay, stigma-

ize as beast, without qualification. I spoke of the beast in human nature as belonging to all men, being dangerous only when it got uppermost. I had no special reference to this question of universal suffrage. If we were to have universal suffrage, I think the principles which I have sought to lay down would be more necessary than they could be under any other circumstances. MR. S. H. MORSE-THESDIVINE VOICE.

Mr. Emerson is responsible for the saying, "If you want to test a boy turn him into a 10-acre lot and set the dogs upon him." Well, is not that our idea in this conntry in regard to government 1 Is governing a business? The question is whether our Government is a special business, separate and distinct from a general civiliza-tion, or whether it is simply turning the people of the land loose over our 10 acre lots and setting the dogs upon them. It seems to me that Mr. Wassen presents a very practical point for us to consider. We want at all events, as he has so well shown, laws which we can respect. Lucy Stone being called for said she was too full for ut

MR. BLACKWELL-THE ALTERNATIVE. It seems to me that the practical question that has been asked by Mr. Weiss lies at the bottom of the whole disussion-whether we can find any touchstone of effort and intellect by which we may improve upon the idea of universal suffrage as a means of obtaining the highest conscience of the human race. It seems to me that as a practical alternative it is either to sanction the